

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. APPLICATION NO. 09/996,580
ATTORNEY DOCKET NO. Q66805

REMARKS

Claims 1-5 are all the claims pending in the application.

To summarize, the Examiner has withdrawn the previously applied rejection of claims 1-5 under 35 U.S.C. § 112, second paragraph. However, the Examiner maintains the rejection of claims 1-5 under 35 U.S.C. § 103(a) as being obvious over Wang et al. (IEEE article *submitted by Applicant in the Information Disclosure Statement of November 20, 2001*) or Kano (U.S. Patent No. 5,903,708) in view of McGlone (U.S. Patent No. 6,037,776) or Dahlberg (U.S. Patent No. 5,747,997).

A. First, Applicant amends independent claim 1, as indicated herein, and submits that none of the applied references, either alone or in combination, teaches or suggests at least “wherein said vehicle-mounted magnetoresistive sensor element further comprises a substrate and a buffer layer, said buffer layer being disposed between said substrate and at least one of said magnetic layer and said nonmagnetic layer, and wherein said buffer layer is composed of the same material as that of said magnetic layer,” as recited in amended claim 1.

Applicant submits that dependent claims 2-5 are patentable at least by virtue of their respective indirect or direct dependency from independent claim 1.¹

¹ Claim 3 is amended, as indicated herein, for clarification purposes to be consistent with amended claim 1.

B. Also, in the present Office Action, the Examiner takes the position that the limitation of claim 1 added in the Amendment of April 16, 2003, is an *inherent* limitation of the prior art for several reasons (see Office Action, numbered paragraph 3).

The Examiner alleges that, even if the prior art devices reached the saturation point below 100 Oersteds, saturation also would be present beyond this point. In other words, saturation also would be present at or above 100 Oersteds. Applicant submits that, in the present invention, the magnitude of the magnetic field is equal to or more than 100 Oersteds at a point where an integral of magnetoresistance ratio occupies 90% of a total magnetoresistance ratio in a magnetoresistance curve, not merely any point beyond which saturation has occurred.

Further, with respect to the alleged inherency of the additional recitation of claim 1, Applicant points out that it is settled law that, in relying on a theory of inherency, the Examiner must provide a basis in fact and/or cogent technical reasoning to support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art (see MPEP § 2112). That is, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic; the result or characteristic must flow necessarily from the resulting combination of references. (see MPEP § 2112; see also *In re Rijckaert*, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)(reversed rejection because inherency was based on what would result due to optimization of condition, not what was necessarily present in the prior art).

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Applicant submits that the combination of the cited references would not result necessarily in a device having the claimed magnitude of a magnetic field at the claimed point, as recited in claim 1, as it would be necessary to *optimize* the features of the resulting device to arrive at the claimed invention. As such, Applicant submits that at least the aforementioned recitation of claim 1 would not flow necessarily from the resulting combination, and thus, would not have been inherent from the combination of cited references.

Moreover, Applicant notes that the Federal Circuit has held that “[t]hat which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown. Such a retrospective view of inherency is not a substitute for some teaching or suggestion supporting an obviousness rejection.” *In re Rijckaert*, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). In the present application, Applicant discloses that GMR elements according to the claimed invention show satisfactory sensitivity under high temperature conditions, as well as at room temperature (see page, 20, last paragraph, of the specification).

However, neither of the cited references discloses, or even mentions, this feature or the advantages derived therefrom. As such, Applicant submits that, regardless of whether the claimed features may, or may not, be inherent from the combination of cited references, the Examiner has not established that such features were known. Accordingly, since inherency is not a substitute for some teaching or suggestion supporting an obviousness rejection, Applicant submits that the obviousness rejection of claims 1-5 should be withdrawn.

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In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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